

## NEW SPECIES OF ERIGONEAE AND THERIDIIDAE

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**Oedothorax platyrhinus** new species. (Pl. XV, Figs. 1-5.)

Male. Length, 1.3 mm. Cephalothorax dusky yellowish; viewed from above widest behind the middle, rounded on the sides behind; the sides then straight and converging to near the end of the greatly protruding clypeus which is rounded and slightly emarginate at tip; viewed from the side steeply ascending in a straight line to the cervical groove. There are two cephalic lobes separated by a deep transverse groove in line with the posterior median eyes. The posterior lobe is larger and higher than the anterior. The front of the anterior lobe is steep. The clypeus is extremely protuberant in the form of a flattened snout which projects forward and is bent downward. On the upper surface there are two parallel low ridges extending from the lateral eyes to the tip of the snout. The ridges are darker and clothed with out-turned stiff hairs. The snout extends beyond the femur of the palpus.

Posterior eyes in a strongly procurved line, the median larger than the lateral, separated by twice the diameter and from the lateral by one and one-third times the diameter. Anterior eyes in a strongly procurved line, the median smaller than the lateral, separated by the radius and from the lateral by one and one-half times the diameter. Sternum gray over pale yellowish, darker at margin, as broad as long, rounded convex, and broadly produced between the hind coxæ, which are separated by a little more than the diameter. Labium dark, endites pale. Legs and palpi pale yellowish white. Abdomen above whitish with a dusky short median stripe; below grayish, blackish around the spinnerets.

Femur of palpus thickest just beyond the middle, patella large and stout, widened distally. Ratio of length of femur to that of patella as 15 to 8. Tibia short and armed with a long straight blunt-tipped dorso-lateral apophysis. The lateral margin bears a submarginal row of five very long slender hairs. Paracymbium broad at base, strongly curved, and hooked at tip. The posterior angle of the bezel produced with a distinct blunt black tooth. The tail-piece of the embolic division broad, flat and pear-shaped (Fig. 2, *t. p.*). The apical part of the embolus emerges from the edge of the bezel as a short black curved process with three small teeth at the tip. The median apophysis can be seen as a small sharp black tooth behind the embolus.

Female. Length, 1.5 mm. Colored like the male. Cephalothorax viewed from above rather long, rounded on the sides, slightly constricted at the cervical groove and bluntly rounded in front; viewed from the side, strongly

arched over the back to the posterior eyes. Clypeus straight and protruding. Posterior eyes in a procurved line, equal and equidistant, separated by about the diameter. Anterior eyes in a very slightly procurved line, the median smaller than the lateral, separated by the radius and from the lateral by the diameter. Clypeus narrower than the median ocular area. The epigynum (Fig. 5) consists of a broad strongly convex, transverse plate, evenly and gently convex behind.

Holotype male, allotype female.

Type locality: Mt. Pisgah, N. C., 3,000 ft., Oct. 19, 1923, 2 ♂, 2 ♀.

North Carolina: Oteen, Oct. 16, 1923, 1 ♂, 1 ♀.

Virginia: Anna River, Oct. 28, 1923, 2 ♂.

Pennsylvania: Roxbury, Oct. 30, 1924, 2 ♀.

**Oedothorax eranistes** new species. (Pl. XV, Figs. 6-7.)

Male. Length, 1.2 mm. Cephalothorax yellowish gray with indistinct radiating lines, darker on the margin; viewed from above, evenly rounded on the sides, slightly constricted at the cervical groove, converging and rounded on the sides of the head, squarely truncate in front; viewed from the side, steeply ascending in a straight line to the back of the head, then rounded down to the anterior median eyes, a distinct hump back of the eyes; clypeus strongly protuberant, slightly convex above and slanting forward, strongly retreating below. Chelicerae small and strongly retreating.

Posterior eyes in a procurved line, equal, the median separated by three times the diameter and from the lateral by one and one-half times the diameter. Anterior eyes in a straight line, the median a little smaller than the lateral, subcontiguous, separated from the lateral by a little more than twice the diameter of the median. Clypeus a little wider than the median ocular area. Sternum greenish gray with a tinge of yellow, strongly convex, rounded on the sides, produced in a truncate point between the hind coxae which are separated by the diameter. Labium and endites dusky yellow. No tooth on face of chelicera. Legs and palpi light yellowish. Abdomen dark greenish gray, with a few narrow transverse light lines posteriorly.

Femur of palpus short, stout, rather strongly curved. Patella long, gently arched above and armed below at tip with a large round-tipped process. Tibia short and strongly flaring; the dorso-mesal margin produced with a thin, rounded lobe; dorso-laterally produced with a short, broad, thin strongly incurved apophysis the distal margin of which is black and smooth. Paracymbium strongly curved, slightly hooked. Tegulum with a distinct protuberance on the ventral face. Bezel low. Tail-piece of the embolic division an elongate lobe, slightly constricted near the base (Fig. 7, *t. p.*). The tip rounded and extending on the edge of the tegulum. The embolus (Fig. 7, *em.*) arises with a sharp bend near the middle, about as long as the tail-piece, inclined towards the bezel, the tip erect and directed distally. The median apophysis appears as a rounded brownish lobe.

Holotype male.

Virginia: Alberta, Oct. 28, 1923, 1 ♂.

**Oedothorax sarcocuon** new species. (Pl. XV, Figs. 8-10.)

Male. Length, 1.4 mm. Cephalothorax smooth greenish gray; viewed from above, very broad, evenly rounded on the sides to a point in front, cervical and dorsal grooves distinct; viewed from the side rather low back of the cervical groove and gently ascending, then abruptly elevated and rounded over the cephalic lobe. The cephalic lobe high, broad behind and narrow in front bearing all the eyes. Below anterior eyes is a deep transverse groove widened at the ends. Clypeus viewed from the side notched just below the eyes at the transverse furrow, then strongly protuberant like the profile of the nose of a lion.

Posterior eyes in a recurved line, equal, separated by a little more than the diameter and from the lateral by the diameter. Anterior eyes in a straight line, the median much smaller than the lateral, subcontiguous and separated from the lateral by twice the diameter. Clypeus twice as wide as the median ocular area.

Sternum dark greenish gray, rather long, sides convergent to the hind coxæ, then abruptly narrowed, produced in a truncate point between the hind coxæ which are separated by a little more than the diameter. Labium same color as the sternum. Endites dusky yellowish. No tooth on face of chelicera. Legs and palpi yellowish white. Abdomen light grayish brown, darker beneath with usual two white lines clothed with black hairs.

Femur of palpus rather stout, moderately curved. Patella rather long, slightly arched. Ratio of length of femur to that of patella as 20 to 8. Tibia about as long as patella, widened distally. The dorsal margin produced into two, strong, blunt, black teeth; on the mesal side the edge is incurved, giving the appearance of a third tooth. On the lateral ventral side the tibia is produced into a large lobe on the front angle of which there is a short, broad, semi-transparent, triangular tooth. Between this lobe and the latero-dorsal tooth is a broad square imargination, along the edge of which are six long, black hairs. Paracymbium rather slender, strongly curved and hooked at the tip. The bezel is very narrow on the side next to the paracymbium but ventrally produced into a large, rounded protuberance. The embolus is long, black, shining, stout at base and moderately curved and arises from the lateral side of a bulb-like base.

Holotype male.

Pennsylvania: Potters Mills, Oct. 31, 1924, 2 ♂.

**Oedothorax limnæus** new species. (Pl. XVI, Figs. 11-14.)

Male. Length, 1.3 mm. Cephalothorax dusky yellowish with the margin and radiating lines darker; viewed from above evenly rounded on the sides, strongly convergent towards the front, slightly but distinctly constricted at the cervical groove, broadly rounded across the front; viewed from the side, the posterior declivity rather steep, nearly flat on top, rounded over the head

to the posterior eyes. Head armed with a median row of stiff black hairs directed forward. Clypeus straight and almost vertical.

Posterior eyes in a straight line, equal, equidistant, separated by a little less than the diameter. Anterior eyes in a nearly straight line, the median smaller than the lateral, separated by the radius and from the lateral by the diameter. Clypeus a little narrower than the median ocular area.

Sternum dark greenish gray with a few minute yellowish spots, strongly convex, rounded on the sides, produced in a truncate point between the hind coxæ which are separated by a little less than the diameter. Labium same color as sternum. Endites dusky yellow. Chelicerae dusky orange armed on the inner side of the face with a row of setigerous tubercles, the lower one larger than the other. Legs and palpi dull yellowish, coxæ below marked with grayish, darker on the margin. Abdomen dark greenish gray.

Femur of palpus curved and slightly widened distally. Patella short and rather strongly arched above. Ratio of length of femur to that of patella as 15 to 5. Tibia a little longer than patella, the dorsal margin broadly rounded with a small, sharp, incurved black tooth on the dorso-lateral angle. Paracymbium enlarged at the base where it articulates with the cymbium. This enlargement is opposed to the tooth on the dorso-lateral margin of the tibia. Paracymbium large, strongly curved and on the ventral side it is greatly widened so that when viewed in this aspect it is triangular. Apposed to the paracymbium on the ventral side is a slender process widened and truncated at the tip, coming from the opposite side of the cymbium (Fig. 13, *x*). The end of this process is bent ventrally and almost touches the paracymbium. The bezel is low. The tegulum is ventrally somewhat protuberant but not provided with a tooth. The embolic division consists of a bulb-like base which lies across the tip of the palpal organ next to the edge of the cymbium; the embolus arises from the ventral side of the basal part and makes a semicircular curve around the end of the bulb, the tip lying at the edge of the cymbium. The median apophysis appears as a small, rounded, blackish tooth near the bezel.

Female. Length, 1.3 mm. Similar to male in form and color. Chelicerae armed on the inner side of the face with a row of three stiff bristles. Epigynum (Fig. 14) a broad convex plate, evenly and broadly rounded behind, the middle part of the hind margin upturned so as to leave a transverse depression in front of it.

Holotype male, allotype female.

Colorado: Pingree Park, Larimer Co., Aug. 20, 1924, 23 ♂, 62 ♀. In moss by pond.

New York: McLean, May 30, 1919, 8 ♂, 10 ♀; May 8, 1919, 2 ♂, 1 ♀; May 6, 1920, 1 ♂; May 14, 1921, 10 ♂, 21 ♀. In moss by pond.

***Oedothorax potamius*** new species. (Pl. XVI, Figs. 15-16.)

Male. Length, 1.5 mm. Cephalothorax dusky orange, a little darker at the margin; viewed from above evenly rounded on the sides, slightly con-



vergent towards the front, broadly rounded in front; viewed from the side, rather steeply ascending on the posterior declivity, then gradually ascending to the posterior eyes. Clypeus nearly straight and protruding.

Posterior eyes in a straight line, equal, equidistant, separated by a little less than the radius. Anterior eyes in a straight line, the median smaller than the lateral, equidistant, separated by a little less than the radius of the median. Clypeus only about half as wide as the median ocular area. A tooth on the face of chelicera.

Sternum grayish yellow, narrowly margined with black, broad, rounded on the sides and produced in a truncate point between the hind coxæ which are separated by a little less than the diameter. Labium same color as sternum. Endites dusky orange-yellow. Legs and palpi dirty yellow. Coxæ narrowly margined with black distally. Abdomen greenish gray, darker towards the tip.

Femur of palpus rather slender, moderately curved. Patella short, almost straight. Tibia short greatly widened distally, a broad, shallow rounded notch on the dorsal margin; dorso-mesally produced into a broad, flat, rectangular lobe the corners of which are acute, each bearing a long stiff hair directed towards the cymbium. The dorso-lateral angle has a rounded lobe which on the side next to the paracymbium has a small semicircular notch; on the base of the paracymbium, there is a row of three very long stiff hairs, the basal one the largest. The terminal part of the paracymbium broadly rounded at base, broad at the apex, and very strongly hooked. Bezel rather high, pointed, rounded at the tip. Tail-piece of the embolic division (Fig. 16, *t. p.*) a rounded bulb-like plate, lying at the base of the genital bulb, the tip extending over the edge of the tegulum on the side next to the paracymbium. The embolus arises directly from the tail-piece and has a sharp, double curve, the slender terminal part lying deep back in the alveolus. The tip extends distally and is protected by a membranous conductor. The median apophysis appears as two sharp teeth between the bezel and the edge of the cymbium.

Holotype male.

Virginia: Great Falls, Apr. 3, 1921, 1 ♂.

Illinois: Salts, July 23, 1926, 1 ♂ (V. G. Smith).

***Oedothorax pidacitis*** new species. (Pl. XVI, Figs. 17-18.)

Male. Length, 1.9 mm. Cephalothorax dirty greenish white with darker radiating lines, darker at the margin; viewed from above evenly rounded on the sides to the front, broadly rounded in front; viewed from the side steeply ascending on the posterior declivity, nearly flat on top and then rounded down to the eyes. Clypeus straight and vertical. On the head there is a median row of three long black hairs directed forward.

Posterior eyes in a slightly procurved line, equal and equidistant, separated by the diameter. Anterior eyes in a straight line, the median smaller than the lateral, all separated by a little less than the diameter of the median. Clypeus a little wider than the median ocular area.

Sternum greenish gray, shrunken. Labium same color as sternum. Endites dirty white. Legs and palpi waxy white. Abdomen mottled gray and brown.

Femur of palpus moderately long and stout, rather strongly curved, and widened distally. Patella moderately long, straight. Ratio of length of femur to that of patella as 26 to 9. Tibia strongly produced dorsally with a large rounded excavation on the lateral half, leaving a dorsal process rounded on the mesal side and concave on the lateral side. The edge of the excavation is black, contrasting strongly with the rest of the tibia. On the lateral side of the excavation there is a low, triangular black tooth, mesad of which the margin is finely denticulate. The paracymbium is large and curved over; when viewed ventrally, the basal part is oval with a rather long curved branch hooked at tip, extending toward the edge of the cymbium.

The bulb-like base of the embolic division is broadly pyriform with its base lying close to the cymbium (Fig. 18, *t. p.*). The embolus is stout at base, long and spirally curved, making about one complete turn. The first half of the turn lies back under the cymbium and the slender tip projects diagonally forward from the tip of the bulb, where it is supported by a large membranous conductor. The median apophysis is a short, black, blunt-pointed, curved tooth, lying under the outer curve of the embolus.

Holotype male.

Colorado: Pingree Park, Larimer Co., Aug. 20, 1924. In moss by a spring, 10,000 ft., 1 ♂.

The following species in superficial characters strikingly resemble members of the genus *Ceraticelus* of the *Argiopidae*. In fact we considered it as belonging to that genus until we came to study the structure of the palpal organ. These forms exemplify to a striking degree the phenomenon of convergence in superficial characters although they belong to distinct families.

#### Family THERIDIIDAE

##### *Micropholcomma* new genus

Closely related to *Pholcomma Thorell*, from which it may be distinguished by having the metatarsi of the legs very much shorter than the tarsi, less than one-half as long.

Type *M. cæligenus* new species, described below.

***Micropholcomma cæligenus* new species.** (Pl. XVI, Fig. 19.)

Male. Length, .8 mm. Cephalothorax viewed from above rather broad, evenly rounded on the sides to the eyes, bluntly rounded in front; viewed from the side, very high, steeply ascending behind, broadly rounded over the back down to the eyes, highest in front of the posterior declivity where

there arises a pair of long, erect, stiff hairs curved forward. Clypeus straight, retreating. Cephalothorax yellow-orange in ground color, distinctly marked with blackish radiating lines and with a rectangular pattern on the back.

Posterior eyes in a straight line, the median separated by a little less than the diameter and a little nearer to the lateral. Anterior eyes in a distinctly procurved line, the median much smaller than the lateral, separated by a little less than the diameter and almost touching the lateral. Width of clypeus one and one-half times the diameter of an anterior lateral eye.

Sternum smooth and shining, reddish orange in ground color and strongly mottled with blackish, broadly and squarely truncate behind. Hind coxae separated by more than the diameter. Labium same color as sternum. Endites yellow-orange marked with fine black dots. Chelicerae orange-yellow, divergent, obliquely truncate within and armed with a long, slender, strongly curved claw. Legs orange-yellow, patella lighter, metatarsi not over half as long as tarsi. Abdomen almost entirely covered by a smooth grayish orange sclerite. Epigastric sclerite strongly developed and produced behind in two converging points. Mammillary sclerite surrounds the spinnerets. Soft parts of abdomen yellowish, mottled and streaked on the sides with greenish and reddish orange.

Femur of palpus short and thick; patella stout, nearly as long as femur, curved downward at base, viewed from the side oval and provided with a pointed process on the ventro-lateral angle; tibia shorter than patella, broader distally and attached to the patella on the inner upper side; tarsus small and rounded. The embolus arises on the face of the bulb and makes one complete turn. Lateral edge of cymbium provided with four or five long, slender hairs.

Type male. Emerald, Australia, June 9, 1924. Stanley Butler coll.

All types in the collection of Cornell University.

## EXPLANATION OF PLATES

(All the drawings were made by Mr. W. J. Schoonmaker)

## PLATE XV

- FIG. 1. *Oedothorax platyrhinus*, lateral view of palpus.  
FIG. 2. *Oedothorax platyrhinus*, mesal view of palpus.  
FIG. 3. *Oedothorax platyrhinus*, lateral view of cephalothorax. ♂.  
FIG. 4. *Oedothorax platyrhinus*, front view of head. ♂.  
FIG. 5. *Oedothorax platyrhinus*, epigynum.  
FIG. 6. *Oedothorax eranistes*, dorsal view of male palpus.  
FIG. 7. *Oedothorax eranistes*, mesal view of male palpus.  
FIG. 8. *Oedothorax sarcocuon*, lateral view of male palpus.  
FIG. 9. *Oedothorax sarcocuon*, mesal view of male palpus.  
FIG. 10. *Oedothorax sarcocuon*, dorso-lateral view of male palpus.

## PLATE XVI

- FIG. 11. *Oedothorax limnæus*, lateral view of male palpus.  
FIG. 12. *Oedothorax limnæus*, dorsal view of male palpus.  
FIG. 13. *Oedothorax limnæus*, mesal view of male palpus.  
FIG. 14. *Oedothorax limnæus*, epigynum.  
FIG. 15. *Oedothorax potamius*, dorso-lateral view of male palpus.  
FIG. 16. *Oedothorax potamius*, ventral view of male palpus.  
FIG. 17. *Oedothorax pidacitis*, dorsal view of male palpus.  
FIG. 18. *Oedothorax pidacitis*, ventral view of male palpus.  
FIG. 19. *Micropholcomma cæligenus*, lateral view of male palpus.







